

ABSTRACT

A dental handpiece is provided including a neck wherein balls are guided in transverse channels of an input shaft and are radially spaced apart by a support piece including a tapered part thrust by a spring. A linking ring is mounted on the end of the input shaft and includes internal longitudinal grooves circular in cross-section and of variable depth along the longitudinal direction. The linking ring is mounted sliding and locked in rotation on an output shaft. Under the action of a resisting torque applied by the tool to the output shaft greater than a predetermined threshold, the linking balls are subjected to a reaction from the internal grooves of the linking ring which tends to bring them closer together, countering the spring. The balls are then released, producing a disengagement which limits the transmitted torque and prevents the tool engaged in the tool-bearing shaft from breaking.